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Title: **JP1316367A2: LIQUID CRYSTAL SUBSTANCE HAVING HETEROCYCLIC SKELETON**

Country: **JP** Japan
 Kind: **A**

Inventor: **SUZUKI GIICHI;
HAGIWARA TAKASHI;
AIHARA YOSHIHIKO;**

Assignee: **SHOWA SHELL SEKIYU KK**
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Application Number: **JP1989000071776**

IPC Code: **C07D 239/26; C09K 19/34; G02F 1/13;**

Priority Number: **March 28, 1988 JP1988000071816**

Abstract:

NEW MATERIAL: A compound expressed by formula I (R1 and R2 are 1-20C alkyl; A and B are Ph, Cy, Ph-Cy or Cy-Ph or further A is Ph-Ph or Cy-Cy; Ph is formula V; Cy is formula VI; X is fluoroalkyl; Y and Z are OCO, COO, OCH2 or CH2O).

EXAMPLE: 4'-(5-Octylpyrimidinyl-2)-phenyl 4-(1-fluoromethylnonyloxy-carbonyl) benzoate.

USE: A chemically and photochemically stable liquid crystal substance, having great dielectric anisotropy, capable of providing a recognized liquid crystal phase assuming tristable state and exhibiting electroclinic effects and high-speed responsiveness with great spontaneous polarization and good orientation properties.

PREPARATION: 4-Benzyloxybenzonitrile and terephthalic acid are used as respective starting materials to provide compounds expressed by formulas II and III, which are then esterified to afford the compound expressed by formula IV in formula I.

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Family: [Show 2 known family members](#)

Forward References:

PDF	Pat nt	Pub.Dat	Inventor	Assignee	Title
	US6267910	2001-07-31	Hayashi; Hitoshi	Nippon Soken, Inc.	Antiferroelectric liquid crystal composition
	US6239316	2001-05-29	Mine; Takakiyo	Mitsubishi Gas Chemical Company Inc	Optically active secondary alcohol and process for production thereof

	US6133469	2000-10-17	Mine; Takakiyo	Mitsubishi Gas Chemical Company	Anti-ferroelectric liquid c compound
	US6129859	2000-10-10	Hijikata; Yoshimasa	Nippon Soken, Inc.	Antiferroelectric liquid cr composition
	US6103517	2000-08-15	Mine; Takakiyo	Mitsubishi Gas Chemical Company	Process for the producti optically active alcohol a novel optically active alc
	US6002042	1999-12-14	Mine; Takakiyo	Mitsubishi Gas Chemical Company, Inc.	Liquid crystal compound
	US5976409	1999-11-02	Mineta; Hiroshi	Mitsubishi Gas Chemical Company, Inc.	Swallow-tail-shaped liqu crystal compound
	US5972242	1999-10-26	Takigawa; Kenji	Denso Corporation	Smectic liquid crystal composition and liquid c display
	US5968413	1999-10-19	Mine; Takakiyo	Mitsubishi Gas Chemical Company, Inc.	Anti-ferroelectric liquid c compounds
	US5955001	1999-09-21	Takigawa; Kenji	Nippon Soken, Inc.	Antiferroelectric liquid cr composition and liquid c indicating element
	US5942646	1999-08-24	Mine; Takakiyo	Mitsubishi Gas Chemical Company, Inc.	Optically active alcohol ; process for the producti thereof
	US5723069	1998-03-03	Mineta; Hiroshi	Mitsubishi Gas Chemical Company, Inc.	Anti-ferroelectric liquid c compound and anti-ferro liquid crystal compositio
	US5716545	1998-02-10	Kikuchi; Katsuhide	Nippon Soken, Inc.	Antiferroelectric liquid cr composition
	US5705094	1998-01-06	Takeuchi; Akira	Nippon Soken, Inc.	Antiferroelectric liquid cr composition and liquid c display element using th
	US5700392	1997-12-23	Kikuchi; Katsuhide	Nippon Soken, Inc.	Antiferroelectric liquid cr composition
	US5676881	1997-10-14	Takigawa; Kenji	Nippon Soken Inc.	Antiferroelectric liquid cr composition
	US5439612	1995-08-08	Illian; Gerd	Hoechst Aktiengesellschaft	Cyclohexylphenylpyrimic process for their prepar and their use in liquid-cr mixtures
	US5330678	1994-07-19	Okabe; Nobuhiro	Showa Shell Sekiyu Kabushiki Kaisha	Liquid crystal compound
	US5200521	1993-04-06	Illian; Gerd	Hoechst Aktiengesellschaft	Cyclohexylphenylpyrimic process for their prepar and their use in liquid-cr mixtures

Other Abstract Info: DERABS C90-040192 DERC90-040192